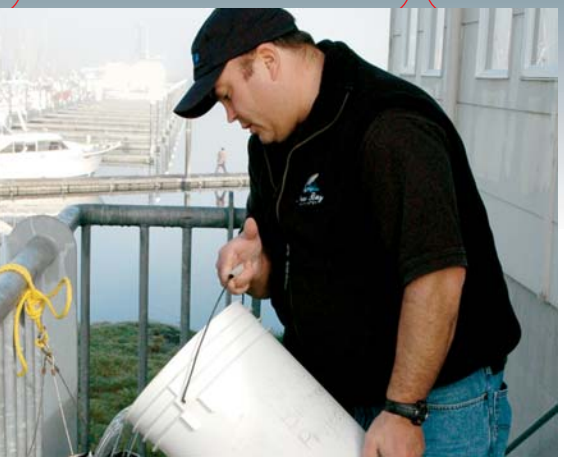

Bill Parkin, Makah water quality technician, prepares to test seawater for the presence of toxins.

Coordinated Tribal Water Quality Program

Introduction

The Coordinated Tribal Water Quality Program (CTWQP) was developed in 1990 by the 27 federally recognized tribes in the State of Washington. Tribes have worked with the U.S. Environmental Protection Agency (EPA) to implement the CTWQP for the past 14 years. EPA funds are enabling the tribes to conduct water quality programs critical to the management of their treaty protected resources, and to provide for the health of their members and the environment.

The CTWQP is designed to further the ability of tribes to organize and begin addressing the water quality concerns that are threatening their reservations and treaty protected resources. Water pollution in Washington threatens the health of tribal members and their treaty resources without respect to political boundaries. Tribal jurisdictions interlock with many other jurisdictions, including some of the most densely populated and industrial areas in the state.

Three commonalties guide program design and implementation:

- All tribes are confronted by serious water quality issues;
- All tribes require necessary infrastructure to adequately address these issues; and
- A watershed/ecosystem approach is the best approach to solving these issues because of their multi-jurisdictional nature.

The tribes in Washington developed and adopted the CTWQP as a watershed protection strategy to safeguard the resources on which they depend for their economic, spiritual and cultural survival. This strategy provides for the development of infrastructure, program implementation and statewide coordination.

At a time when EPA is working to improve responsiveness to Indian government and Indian lands, the Coordinated Tribal Water Quality Program provides a national model. The program demonstrates how tribes and EPA can improve the structure of their relationships, thereby improving the success of ecosystem management approaches. Additionally, this model program has produced transferable tools that can be shared with tribes throughout the nation. These tools include:

- Routine coordination and networking among tribes, state agencies and EPA;
- A coordinated tribal water quality database design and structure;
- A tribal water quality standards template;
- A Coordinated Tribal Water Quality Program design manual; and
- A cooperative state/tribal 303(d) strategy.

The tribes know that the battle against water pollution cannot be fought alone. To succeed, it will require cooperative, coordinated efforts with other governments. To make every funding dollar work to its fullest, the tribes are building partnerships with other governments to implement coordinated, cooperative programs that address water quality issues.

For more than two decades, the tribes in Washington have been successfully developing comprehensive, cooperative agreements with state and local governments and private interest groups to protect and manage natural resources essential to the survival of fish and shellfish. These processes, unique in the nation, have brought previously contending parties together in efforts to address difficult issues.

The tribes are committed to managing water quality on a watershed/ecosystem basis that transcends political boundaries. To that end the tribes have developed the CTWQP, which benefits not only the tribes, but all residents of the state.

The federally recognized tribes in Washington are confronted by serious water pollution issues, but lack the means to adequately address these issues. The main sources of pollution degrading tribal waters are:

- Urbanization;
- Agricultural practices;
- Logging and other silvicultural activities;
- Failing septic systems;
- Stormwater runoff and sewer overflows;
- Municipal and industrial discharge;
- Industrial point source pollution;
- Municipal and industrial water diversions; and
- Mining.

Many of these pollution sources originate some distance from tribal reservations, yet still threaten tribal health and well-being. These types of pollution threaten the survival of salmon, shellfish and other natural resources on which the tribes depend for their survival.

Nearly all tribes operate fish hatcheries and other facilities to supplement stocks of wild salmon. These facilities, which depend on clean water for their operation, produce an average of 40 million young salmon annually.

Participating tribes want the CTWQP coordinating mechanism and technical components to build on the existing efforts of individual tribes and other entities to improve water quality, restore salmon populations and protect shellfish. The CTWQP is neither intended to replace existing tribal programs nor compete with them for funding.

The Program

For 14 years, 27 federally recognized Indian tribes in the State of Washington have been implementing the Coordinated Tribal Water Quality Program. Much has been accomplished in that time. As previously described, the CTWQP has two components – individual tribal programs and coordination.

Individual Tribal Programs

Each of the 27 tribes has professional staff to accomplish program activities. Work in FY 04 continues the successful program implementation.

Utilizing the CTWQP, tribes proceeded to develop and implement watershed management plans, monitor water quality trends, map problem areas, clean up shellfish beds, establish wellhead protection programs, and develop water quality standards.

As sovereign governments and partners in water quality management, the tribes also began participating in cooperative watershed-based, inter-governmental water quality protection activities.

Coordination

The Northwest Indian Fisheries Commission, functioning as the coordination entity for the CTWQP, organizes and facilitates bi-monthly program meetings, provides a forum for program policy development, serves as an information clearinghouse, represents tribal interests on statewide policy and technical committees, arranges meetings of tribal, state and federal participants to address water quality issues, facilitates implementation of tribal water quality programs, and works to maintain program funding. The intent is to support tribal programs while maintaining a coordinated program focus, allowing tribes to focus on their local water quality concerns.

Accomplishments

The continuing success of this tribal water quality protection strategy is encapsulated in the following list of program accomplishments. This is not intended to be a comprehensive list, but a representation of program achievements and the widespread environmental benefits that can be attributed to the program. The success of water quality protection and restoration in Washington requires the tribes to be full and consistent partners.

Tribal Program Accomplishments

Following are some examples of tribal water quality program activities and accomplishments in FY 04:

Jamestown S'Klallam tribal staff plant vegetation to help filter stormwater runoff from a tribal health center complex recently constructed on the reservation.

Makah Tribe

Marine waters are the life-blood of the Makah Tribe. It is a tribal priority to maintain the health of the waters that provide much of the food they eat.

Monitoring is one way the tribe keeps tabs on what is happening in Makah Bay, the Strait of Juan de Fuca and the Pacific Ocean. For nearly five years, Bill Parkin, a Makah tribal member, has been measuring the health of Makah Bay and tracking the presence of the microscopic plants that help indicate when shellfish become toxic.

Parkin, who is also a Makah Marina harbormaster and oil spill response coordinator, was trained at the National Oceanic and Atmospheric Administration's lab in Seattle to gather and process seawater samples. With a microscope, Parkin counts the numbers of the types of tiny plants that are thought to create domoic acid in shellfish. Domoic acid is not harmful to the shellfish, but can sicken or kill people who eat the shellfish.

The Makah Tribe is part of the Olympic Region Harmful Algal Bloom partnership organized to investigate the origins of blooms of toxic algae and monitor when and where blooms occur. This summer, Parkin recorded the highest counts of pseudo-nitzschia (the organism believed to cause domoic acid) that he's observed in the four years of the program.

Ultimately, Parkin's work – funded in part through the Coordinated Tribal Water Quality Program – helps Makah tribal members know when it's safe to consume shellfish harvested from area beaches.

On a larger scale, the tribe's work is contributing to a national effort to build a better understanding of how harmful algal blooms form. Additionally, the tribe is helping to test an early warning indicator that would make it unnecessary to test samples of shellfish, an expensive and time-consuming process.

Jamestown S'Klallam Tribe

A newly constructed tribal conference center and a nearly complete tribal social and health service's building are now part of the landscape in the community of Blyn – the home of the Jamestown S'Klallam Tribe.

Having those state-of-the-art facilities to provide tribal members the services they need is vital to the tribe, and just as important is ensuring that the development of those structures doesn't harm another essential resource: the environment.

Development increases the amount of stormwater runoff, which can carry pollutants and other nutrients into waterways. To protect the nearby estuary, the tribe is planning to incorporate a natural filtration system as part of their development plan, with the aid of Coordinated Tribal Water Quality Program funding.

"We are expanding our tribal government facilities and looking at other economic development opportunities, and at the same time we are restoring nearby Jimmycomelately Creek and the Sequim Bay estuary," said Lyn Muench, environmental planning manager for the Jamestown S'Klallam Tribe. "So, we are exploring ways to carefully manage stormwater and lessen its impact on the estuary and streams by employing low impact development techniques as part of our overall development plan."

One technique being considered by the tribe is constructing a "rain garden" that will act as a filter for the runoff before the water reaches the bay. As the runoff flows through the garden, the vegetation will filter out a majority of nutrients and pollutants before the water reaches the bay.

"The tribe understands the importance of economic development, but we don't want that development to harm our natural resources," Muench said. "Including options, such as biofiltration systems or pervious surfaces, we can limit the impact of development and protect this estuary that we have worked so hard to restore."

Squaxin Island Tribe

A new stream gauge that provides real-time data is helping the Squaxin Island Tribe better understand and react to changes on Goldsborough Creek, the largest creek in the tribe's treaty fishing area.

"Seeing how much water is flowing through a stream minute by minute answers many of the questions we deal with," said John Konovsky, water program manager for the Squaxin Tribe.

Goldsborough Creek runs through downtown Shelton, the largest city in the county. The creek was recently the site of a dam removal project that opened up more than 25 miles of salmon habitat.

Tribal staff rushed to assess the affects of a major storm last winter that hit Goldsborough Creek and other surrounding streams especially hard. "Floods can quickly damage or destroy salmon habitat. We wanted to see how the creeks reacted to the flooding," said Konovsky. "If there had been a real-time gauge available then, we would have been able to see the floods coming and reacted quicker."

Information sharing is easier now because stream flow data for Goldsborough is online. "Having this information available on the Internet lets anyone have access to the data," said Konovsky. "Property owners along the creek, or anyone interested in the conditions on the creek, are able to see for themselves."

Swinomish and Sauk-Suiattle Tribes

A salmon recovery project being conducted by the Swinomish Tribe and the Skagit River System Cooperative (SRSC) isn't just critical for fish: it's a positive step, across daunting barriers, toward cooperative environmental work in the Skagit basin.

SRSC, the natural resources consortium of the Swinomish and Sauk-Suiattle tribes, is collaborating with local farmer Gail Thulen on a comprehensive habitat restoration plan for 300 acres of Swinomish tribal land that Thulen leases to grow wheat, peas and potatoes.

"This project is crucially important because a huge amount of habitat that isn't currently accessible to *any* salmon species will be made accessible to *all* salmon species," said Lorraine Loomis, fisheries manager with the Swinomish Tribe. "But it also shows that the tribes' salmon recovery agenda applies to our own land, too. We want to work cooperatively. We'll do whatever we have to do to save these fish.

"Farms and fish can co-exist. We just have to work together and find creative solutions," said Loomis.

Known as the Smokehouse floodplain, the site on the Swinomish Tribe's reservation near La Conner extends north up to the Highway 20 bridge. In addition to essential habitat improvements throughout the site's 300 acres, SRSC work will open access to 5 miles of the Swinomish channel network currently unavailable to salmon.

Immediate benefits are expected for sockeye, pink and chum salmon, which should use the area in high numbers; coho and threatened chinook will also get a boost. Of particular importance will be SRSC's restoration of marsh habitat, which is in short supply and critical to salmon production in the Skagit basin.

Highlights of the restoration plan include: replacement of failing, fish-blocking tide gates; re-planting 50 stream-side acres with native vegetation; and improving connections between the flood plain's creeks, sloughs and channels – which will enhance the site's natural habitat functions.

While performing the extensive restoration work necessary, the tribes will take great care to minimize any risk to Thulen's crops. After dredging sediment from the sloughs to improve habitat connectivity, tribal crews will use that material to shape berms designed to protect the adjacent agricultural land from saltwater intrusion. Finally, for each acre of land impacted by the project, either by decreased productivity or exclusion from tilling, the tribe will financially compensate Thulen.

"We hope this serves as a model for future environmental restoration," said Loomis. "If we work together, we can find projects that are acceptable to everyone – and that's the best way to save the salmon."

Statewide Program Accomplishments

As part of a statewide water quality management model, the tribes and Washington Department of Ecology (DOE) have entered into an intergovernmental approach to coordinate monitoring efforts in safeguarding the water quality throughout the state. Through this technical assistance project, DOE is planning to share resources and expertise with tribal governments to more effectively protect the ecological integrity of our aquatic systems.

Additionally, the Coordinated Tribal Water Quality Program is beginning to implement a Coordinated Tribal Water Quality Program database to more efficiently organize, utilize and share data.

A Model EPA/Tribal Partnership

As the EPA has begun to address its responsibility to tribal lands and resources, the CTWQP is demonstrating how the tribes and EPA can work together. The program also is fulfilling EPA goals for working with Indian governments and lands. Those goals include:

- Development of tribal management capacity;
- Delegation of environmental protection programs to tribes; and
- Encouragement of cooperation between tribal, state and local governments to resolve environmental problems of mutual concern.

The Coordinated Tribal Water Quality Program is producing tribal water quality protection tools with nationwide applicability. To date, four distinct tools have been developed:

- A program design structure that works to coordinate the activities of 27 individual tribal government programs while supporting both their autonomy and sovereignty;
- The Tribal Water Quality Standards Template, a document created to assist tribes and tribal staff who have been selected to incorporate the development of water quality standards into their water quality protection programs;
- The 303(d) Cooperative Implementation Plan. This plan outlines an intergovernmental working relationship between DOE and individual tribal governments in completing the 303(d) listing process both on- and off-reservation throughout the state's watersheds; and
- A Coordinated Tribal Water Quality Database design.

In FY 04 tribes participating in the CTWQP will begin work to "share the model" and take these and other tools to tribes throughout the region.

For More Information

For more information about natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC Web site at www.nwifc.org.